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REMARKS

Rejections under 35 U.S.C. §102

Claims 1-7, 10-11, 13, 15, 17-18, 20 and 22 were rejected under 35 U.S.C. §102(e) as

being anticipated by U.S. Patent 6,535,511 issued to Rao, (hereinafter 'Rao').

Rao, U.S. Patent 6,535,511:

Rao describes a system in which embedded addressing information is identified in a

packet by providing a database including a plurality of records. Each record is operable to

identify a packet having embedded addressing information in the packet. Packets are compared to

the database records to determine whether the packets include embedded addressing information.

In response to determining that a packet includes embedded addressing information, the

embedded addressing information is identified in the packet for translation between disparate

addressing systems. (Rao, Abstract). The purpose of Rao is to overcome a problem, described at

column 1, lines 50-53 as:

> "...A problem with Network and Port Address Translation is that some
> applications embed addressing information in their message payload data. This embedded
> addressing information is also to be translated when the packet is crossing the boundary.
> Unfortunately the translation function does not have the knowledge of the application
> packet format nor does it know if the packet has embedded addressing information.
> Therefor it is not possible for the translation function in the border routers to translate
> such data packets without specific knowledge of such applications and their packet
> formats...."

The basic elements of Rao are shown in Figure 1, whereby a border router 12 includes a

translation table and a translation engine. Applicants note that all translation is performed in Rao

at the border router.

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In contrast, each of the independent claims of Applicants application now clearly recites

elements including "...a plurality of network application servers configured to receive a call

request from the end system, *each of the network application servers including a different pool of*

addresses stored in an address mapping table and the network application servers configured to

generate at least one address mapping responsive thereto..." As stated by the Examiner, at page

8 of the office action "Rao does not explicitly teach that the network application server is one of

a plurality of network application servers, each of the plurality of network application servers

serving separate address pools..." Accordingly, because Rao fails to teach or suggest every

limitation in the claims, it is respectfully submitted that the rejection is overcome by way of

amendment and should be withdrawn.

Independent claims 5, 10, 14 and 17 have also been amended to include limitations

similar to those of claim 1, and are allowable for at least the reason that Rao fails to disclose or

suggest the claimed limitations. Applicants note that the limitations included in the independent

claims are similar to those previously included in claim 12, which was rejected under 35 U.S.C.

§103 over a combination of Rao and Borella. The Applicants believe that the rejection is

overcome by the below arguments, and that accordingly the independent claims of the present

invention are allowable over both Rao alone and the combination of Rao and Borella. Dependent

claims 2-4, 6-9, 11-13, 15-16 and 18-22 serve to add further patentable limitations to their

independent claims, but are allowable for at least the reasons described with regard to the

independent claims.

Rejections under 35 U.S.C. §103

Claim 12:

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Claim 12 was rejected under 35 U.S.C. §103 as being unpatentable over Rao in view of

Borella et al (U.S. Patent 6,353,614).

<u>Borella:</u>

Borella describes, in the Abstract:

"...A method and protocol for Distributed Network Address Translation ("DNAT") is
provided. DNAT is used to overcome the limited address 32-bit address space used for versions
of the Internet Protocol ("IP"). DNAT is used with small office or home office networks or other
legacy local network that have multiple network devices using a common external network
address to communicate with an external network. The protocol includes a port allocation
protocol to allocate globally unique ports to network devices on a local computer network. The
globally unique ports are used in a combination network address with a common external
network address such as an IP address, to identify multiple network devices on a local network to
an external network such as the Internet, an intranet, or a public switched telephone network. The
method includes requesting one or more globally unique ports from network devices on a local
network, receiving the ports, and replacing local ports with the globally unique ports. The
network devices on the local network use the combination network address with the common
external network address and the globally unique port to uniquely identify themselves during
communications with an external network. DNAT overcomes the large computation burdens
encountered when network address translation is done by a router for multiple network devices
on a local network using a common external network address and simplifies routers since a
router in a DNAT system does not have to support multiple individual protocols..."

The Examiner states, at page 8 of the Office Action:

"... Regarding claim 12 ... Rao does not explicitly teach that the network application

server is one of a plurality of network application servers, each of the plurality of network

application servers serving separate address pools associated with different types of data streams

... However, Borella teaches a distributed network application server that is one of a plurality of

network application servers (col. 9, lines 1-30), each of the plurality of network application

servers serving separate address pools (column 9, lines 1-30) associated with different types of

data streams (column 7, lines 58-60). It would have been obvious to one of ordinary skill in the

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art at the time the invention was made to modify the teachings of Rao with that of Borella in order to prevent bottlenecking of the router performing address translation (column 33-38)..."

It is well known that to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Applicants submit that the references cited by the Examiner do not support a prima facie rejection under 35 U.S.C. §103 (a) for at least the following reasons.

No Motivation for the modification needed to meet the claims

The independent claims of the present invention, as amended, now more clearly identify the *types* of data streams. For example, claim 1 is amended to describe "...with different types of data stream stored in an address mapping table, wherein the different types include at least one of voice, data and multimedia streams ...." In contrast, both Rao and Borella use port address translation techniques, wherein the address maps are derived based on binding private and public IP addresses based on the ports used for communication. (See Rao, col. 4, lines 42-46, and Borella col. 7 lines 58-60). Borella states that an advantage of using globally unique port numbers for mapping purposes is that it "does not have to support multiple individual protocols..." Accordingly, Borella in effect teaches away from including information associated with different protocol data (i.e., mapping information associated with a *type* of data stream, wherein the type is voice, multimedia or data). For at least this reason, Applicant submits that no

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motivation is found in the combination of references for modifying the references to meet the

claimed invention. Accordingly, it is respectfully requested that the rejection be withdrawn.

Combination neither describes nor suggests the claimed invention

Even assuming that a motivation can be found for combining the references, the

combination of references neither describes nor suggests the limitations of the claims.

Applicants note that claim 12 depends and further narrows on claim 10, which as amended now

includes the step of "...allocating different pools of addresses to a plurality of address mapping

tables distributed in the communication network, the pools of addresses including at least one of

voice, data and multimedia pools..." No such step is shown or suggested by the reference.

Although the Examiner refers to a section of text that states that a source port field and "a source

address are in the TCP header", no suggestion or description is provided, in Rao, Borella, or the

combination thereof of "allocating different pools of addresses to a plurality of address... the

pools including at least one of voice, data and multimedia pools..." For at least the reason that the

combination of references fails to teach or describe every limitation of the parent claim 10, claim

12 is patentably distinct over the art and it is requested that the rejection be withdrawn.

Applicants note that independent claims 1, 5, 14 and 17 have all been amended to include

a limitation similar to claim 10, and are allowable for the same reasons as put forth in claim 10.

Rejections under 35 U.S.C. §103

Claim 21 was rejected under 35 U.S.C. §103 as being unpatentable over Rao in view of

Durham et al, "The COPS (Common Open Policy Service Protocol)".

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The Examiner relies on Durham as teaching various items about the COPS protocol. However, Applicants note that claim 21 serves to further limit claim 17, which is allowable for the reasons described above. Accordingly, for at least the reason that claim 21 depends from an allowable parent claim, it is similarly allowable.
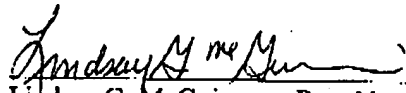
Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Lindsay G. McGuinness, Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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Date

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